

### **REMARKS**

Claims 1- 27 and 29 - 31 are pending and under consideration in the above-identified application, and Claim 28 was previously withdrawn from consideration.

In the Final Office Action of March 11, 2009, Claims 1 - 27 and 29 -31 were rejected.

In this Amendment, Claims 1, 12 – 15 and 29 have been amended, and Claims 11 and 28 have been cancelled. No new matter has been introduced as a result of this Amendment.

Accordingly, Claims 1- 10, 12 - 27 and 29 - 31 remain at issue.

#### **I. Objection to the Specification**

As requested by the Examiner, Claim 29 has been amended to add the wording “storage” in the preamble.

Further, both the present amendment to Claim 29 and the amendment to the Specification presented in the previous Response filed on February 10, 2009, did not introduce any non-statutory subject matter.

Accordingly, Applicants respectfully submit the requests raised by the Examiner have been are met.

#### **II. 35 U.S.C. § 102 Anticipation of Claims**

Claims 1 – 26 and 29 – 31 were rejected under 35 U.S.C. § 102(b) as being anticipated by Agesen et al. (“Agesen”) (U.S. Patent Publication No. 2001/0044856 A1).

Claim 1 is directed to a method in a data processing system having a program for allocating objects in a memory portion that includes a Young Generation and at least one Older Generation.

Claim 1 has been amended by incorporating substantive limitations of Claim 11.

In relevant part, Claim 1 recites:

“...(a) determining whether at least one object should not be allocated in said Young Generation in accordance with a first promotion policy exercised for promoting objects from said Young Generation to an Older Generation of said memory portion;

(b) determining whether said at least one object should be allocated in said Young Generation in accordance with a second promotion policy for said at least one object when said determining (a) determines that said at least one object should not be allocated

in said Young Generation in accordance with said first promotion policy, said second promotion policy exercised for postponing or canceling promoting objects from said Young Generation to said Older Generation; and

(c) storing said at least one object in said Young Generation in accordance with said second promotion policy when said determining (b) determines the second promotion policy for said object, and providing an indication of said second promotion policy in a header of said at least one object.”

That is, a second promotion policy determines that an object should be stored in a Young Generation of a memory portion after a first promotion policy determines that the object should not be allocated in the Young Generation. The first promotion policy is exercised for promoting objects from the Young Generation to an Old Generation of the memory portion. An indication of the second promotion policy is provided in a header of the at least one object kept in the Young Generation.

This is clearly unlike Agesen.

The Examiner indicates that Agesen discloses determining a second promotion policy for the at least one object when it is determined that the at least one object should not be allocated in the Young Generation in accordance with a first promotion policy, and storing the at least one object in the Young Generation in accordance with the determined second promotion policy, and points to paragraphs [0102], and [0121] - [0123].

However, Applicants submit that nowhere does Agesen fairly teach or suggest determining that the at least one object be stored in a Young Generation in accordance with a second promotion policy after determining that the at least one object should not be allocated in the Young Generation in accordance with a first promotion policy, and that an indication of the second promotion policy is provided in a header of the at least one object kept in the Young Generation.

For example, in paragraph [00121], Agesen states (emphasis added):

“[0121] Fast path allocation efficiency may be improved if we are able to recompile the methods for the allocation sites where we wish to set a particular tenuring policy. In some execution environments such adaptation is straightforward. For example, some Java virtual machine implementations provide mechanisms for scheduling a method to be recompiled. *When a change in policy is desired, the methods dependent on a given allocation-site are recompiled to implement the new object-tenuring policy. One*

*advantage of implementations that provide some level of hysteresis in decision-making is to reduce potentially excessive recompilation of the same allocation methods.”*

Moreover, Agesen states in paragraph [0120] in setting the discussion of paragraphs [0121] - [0123] that:

“[0120] In the description above, we described a technique for gathering statistics about the proportion of short-lived and long-lived objects within each category. We now describe how these statistics may be used to decide when to pre-tenure a particular category of object and how these decisions can be implemented.”

That is, Agesen further teaches how gathering statistics, about the proportion of short-lived and long-lived objects, may be used to decide when to pre-tenure a particular category of object and how these decisions can be implemented. Thus, Agesen fails to teach or suggest “(b) determining whether said at least one object should be allocated in said Young Generation in accordance with a second promotion policy for said at least one object when said determining (a) determines that said at least one object should not be allocated in said Young Generation in accordance with said first promotion policy, said second promotion policy exercised for postponing or cancelling promoting objects from said Young Generation to said Older Generation; and (c) storing said at least one object in said Young Generation in accordance with said second promotion policy when said determining (b) determines the second promotion policy for said object, and providing an indication of said second promotion policy in a header of said at least one object,” as required by Claim 1.

Thus, Agesen fails to disclose or suggest all of the limitations of Claim 1. As such, Claim 1 is patentable over Agesen, as are directly or indirectly dependent Claims 2 - 14, for at least the same reasons.

Independent Claims 15 and 29, each of which recites the same distinguishable limitation as that of Claim 1, are also patentable over Agesen, as are dependent Claims 16 - 27 and 30 -31, for at least the same reasons.

Accordingly, Applicants respectfully submit that the claim rejection has been overcome and requests that it be withdrawn.

**III. 35 U.S.C. § 103 Obviousness rejection of Claims**

Claim 27 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Agesen in view of Hayward (U.S. Publication No. 2003/0187888).

Claim 27 is dependent on Claim 15, shown above to be patentable over Agesen.

In addition to Agesen, Hayward also fails to fairly teach or suggest “(b) determining whether said at least one object should be allocated in said Young Generation in accordance with a second promotion policy for said at least one object when said determining (a) determines that said at least one object should not be allocated in said Young Generation in accordance with said first promotion policy, said second promotion policy exercised for postponing or cancelling promoting objects from said Young Generation to said Older Generation; and (c) storing said at least one object in said Young Generation in accordance with said second promotion policy when said determining (b) determines the second promotion policy for said object, and providing an indication of said second promotion policy in a header of said at least one object,” as required by Claim 1.

Thus, no combination of the cited references fairly teaches or suggests the subject matter of Claim 15. Accordingly, Claim 15 is patentable over the cited references, taken singly or in any combination with each other, as is dependent Claim 27, for at least the same reasons.

Accordingly, Applicants respectfully request that the claim rejection be withdrawn.

**IV. Conclusion**

In view of the foregoing, it is submitted that Claims 1- 27 and 29 - 31 are allowable and that the application is in condition for allowance. Notice to that effect is requested.

If the claims are not found to be in condition for allowance, the Examiner is requested to contact the undersigned to schedule an interview before the mailing of the Office Action. Any communication initiated by this paragraph should be deemed an Applicant initiated interview.

Respectfully submitted,

Dated: June 11, 2009

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